

**Notice of Allowability****Application No.**

10/751,489

**Applicant(s)**

SHIRAI ET AL.

**Examiner**

Art Unit

Marissa J. Detschel

2877

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to Application filed January 6, 2004.

2.  The allowed claim(s) is/are 1-20.

3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.

(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
Paper No./Mail Date 01092006.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 1/6/04
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date 01092006.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other See Continuation Sheet.

Gregory J. Tollefson, Jr.  
Supervisory Patent Examiner  
Z61A 06

Continuation of Attachment(s) 9. Other: Drawing sheets illustrating corrections set forth in Examiner's Amendment.

FIG. 9

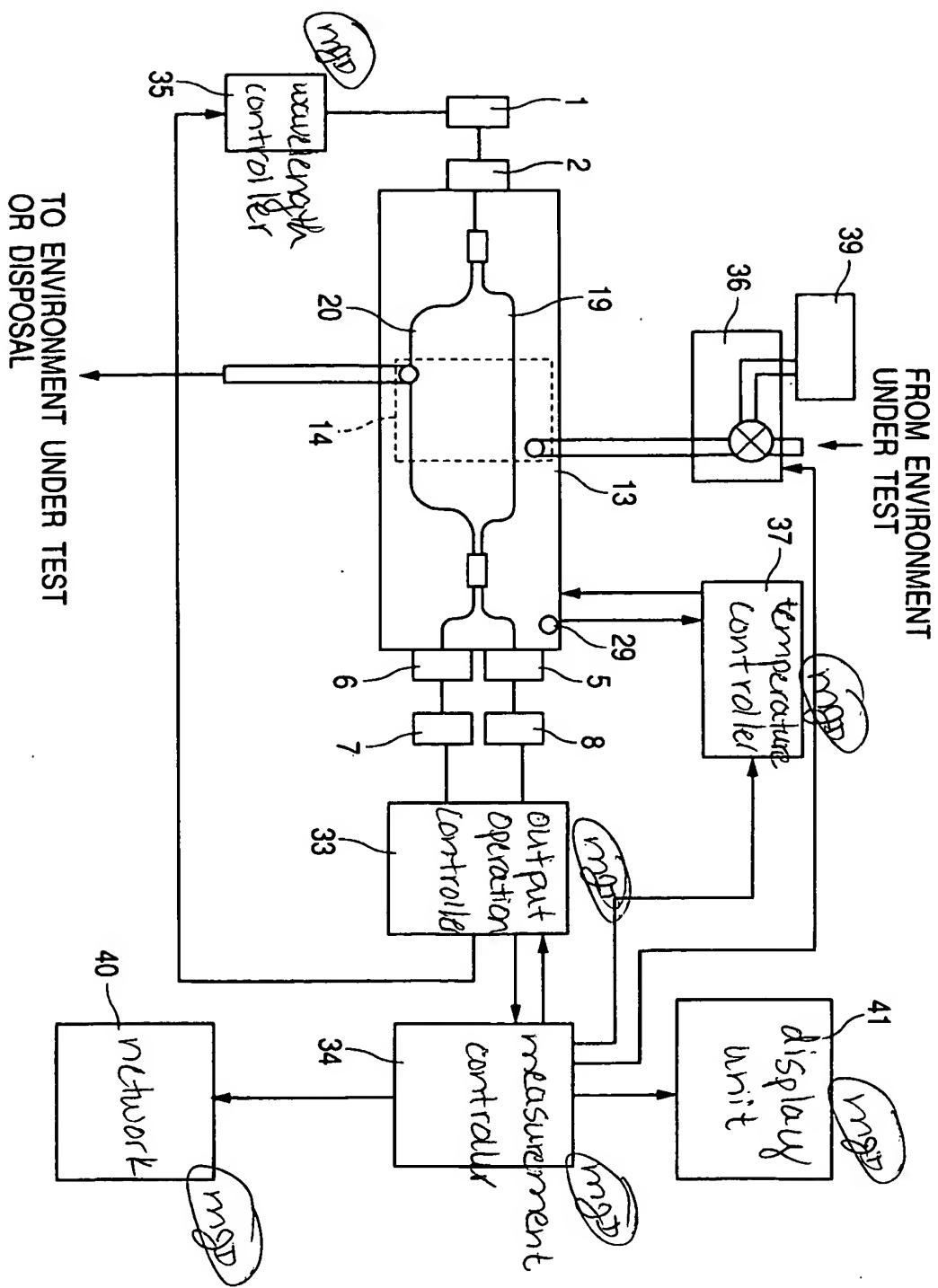
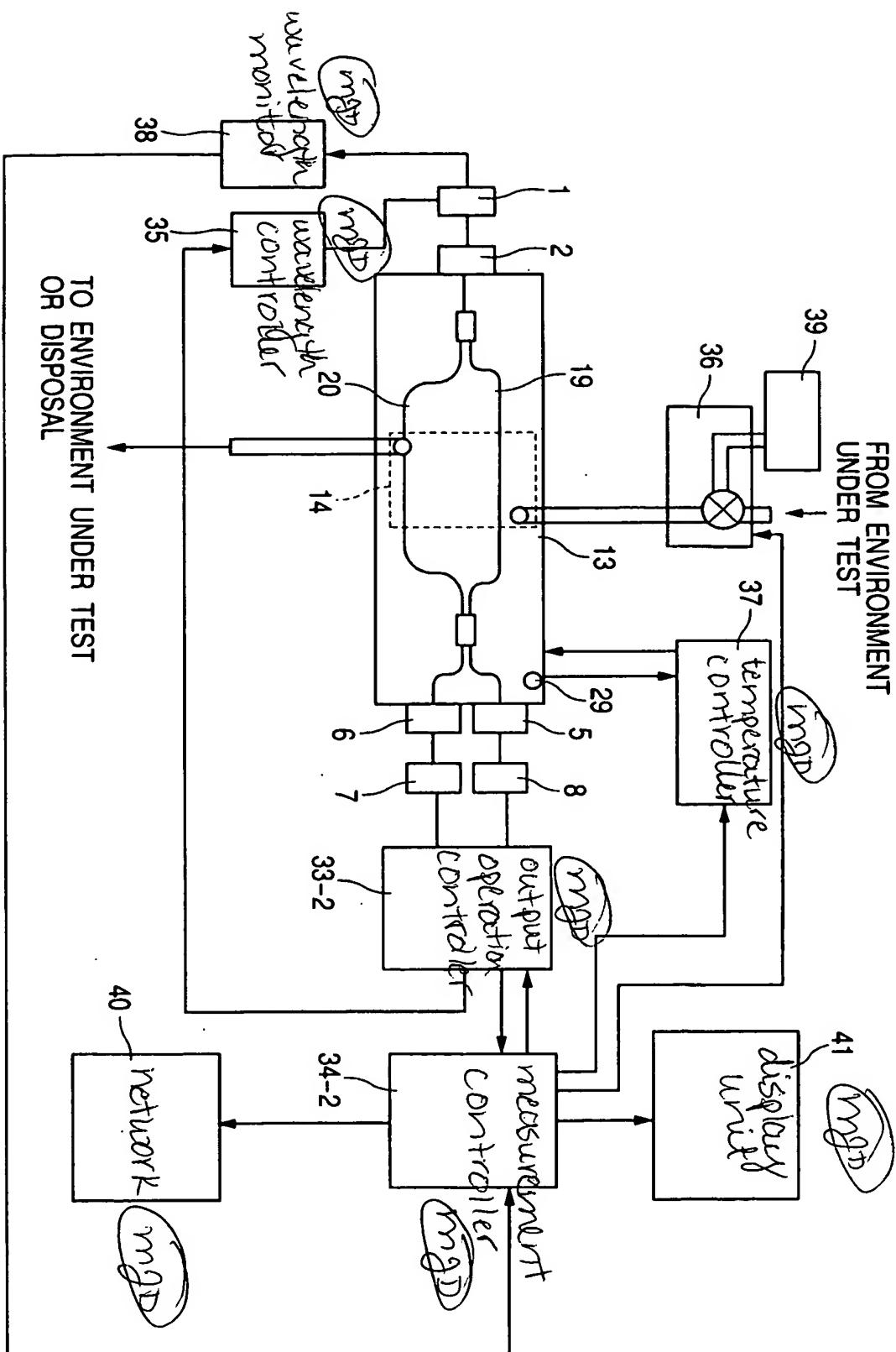


FIG. 10



9712

FIG. 11

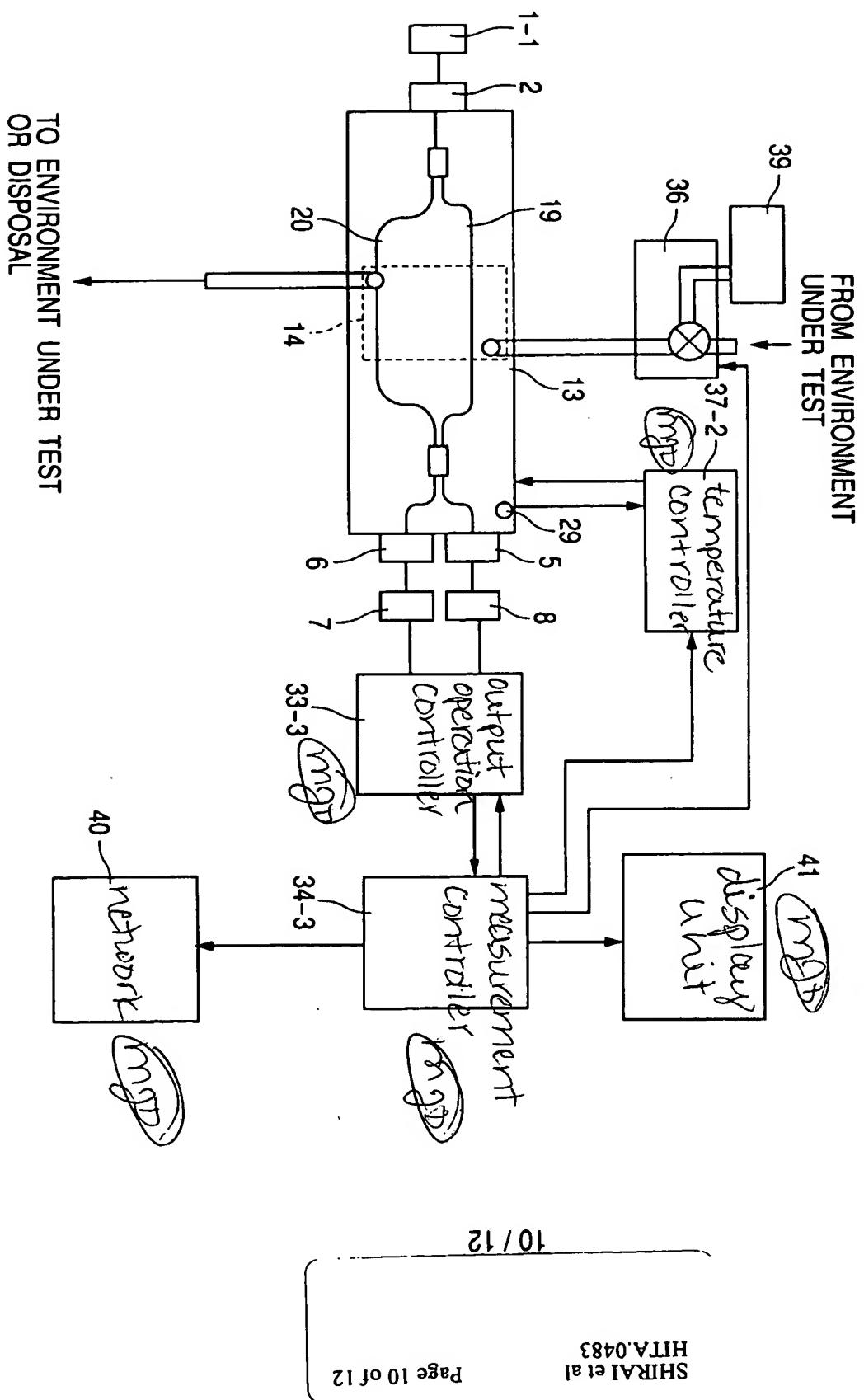


FIG. 12

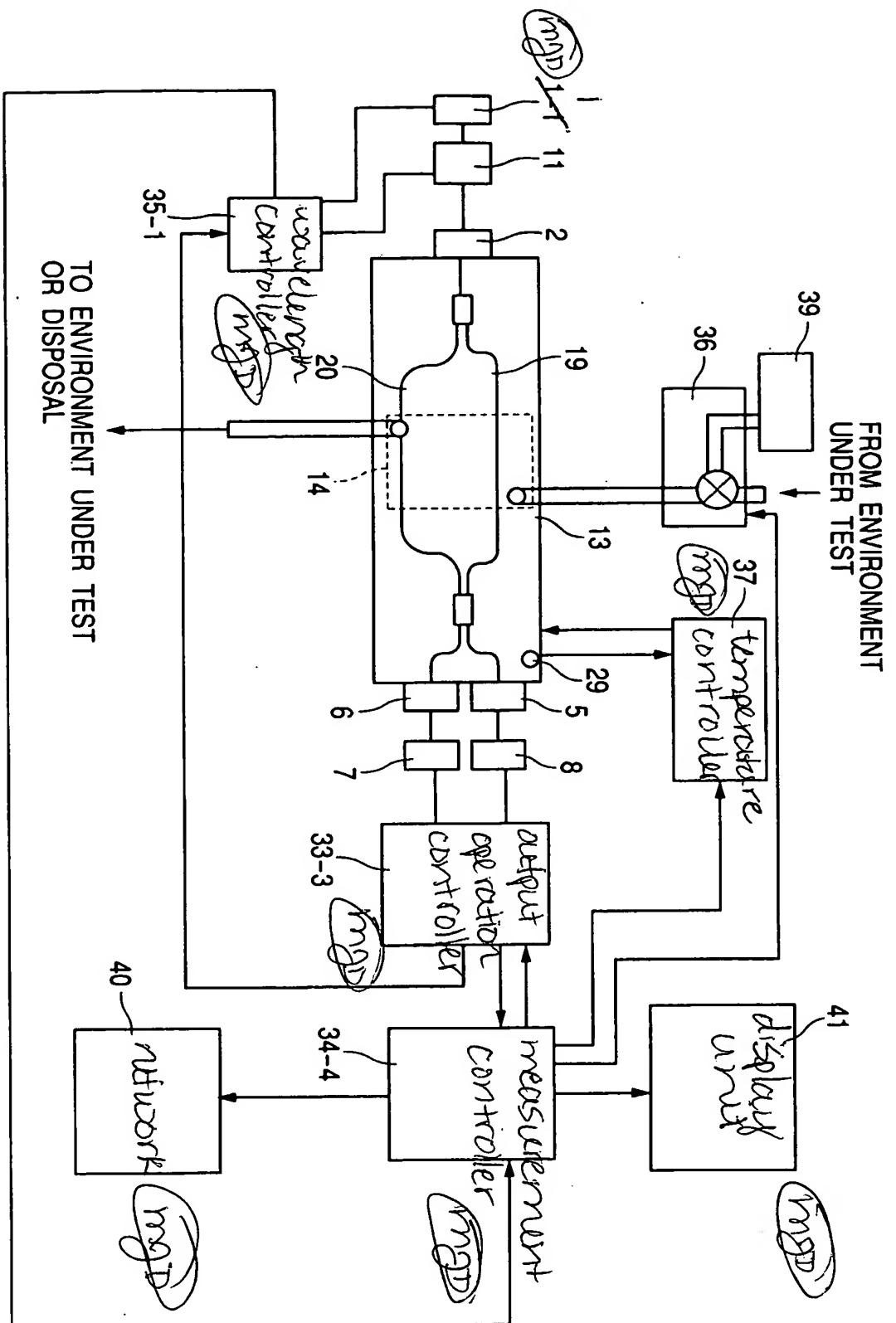
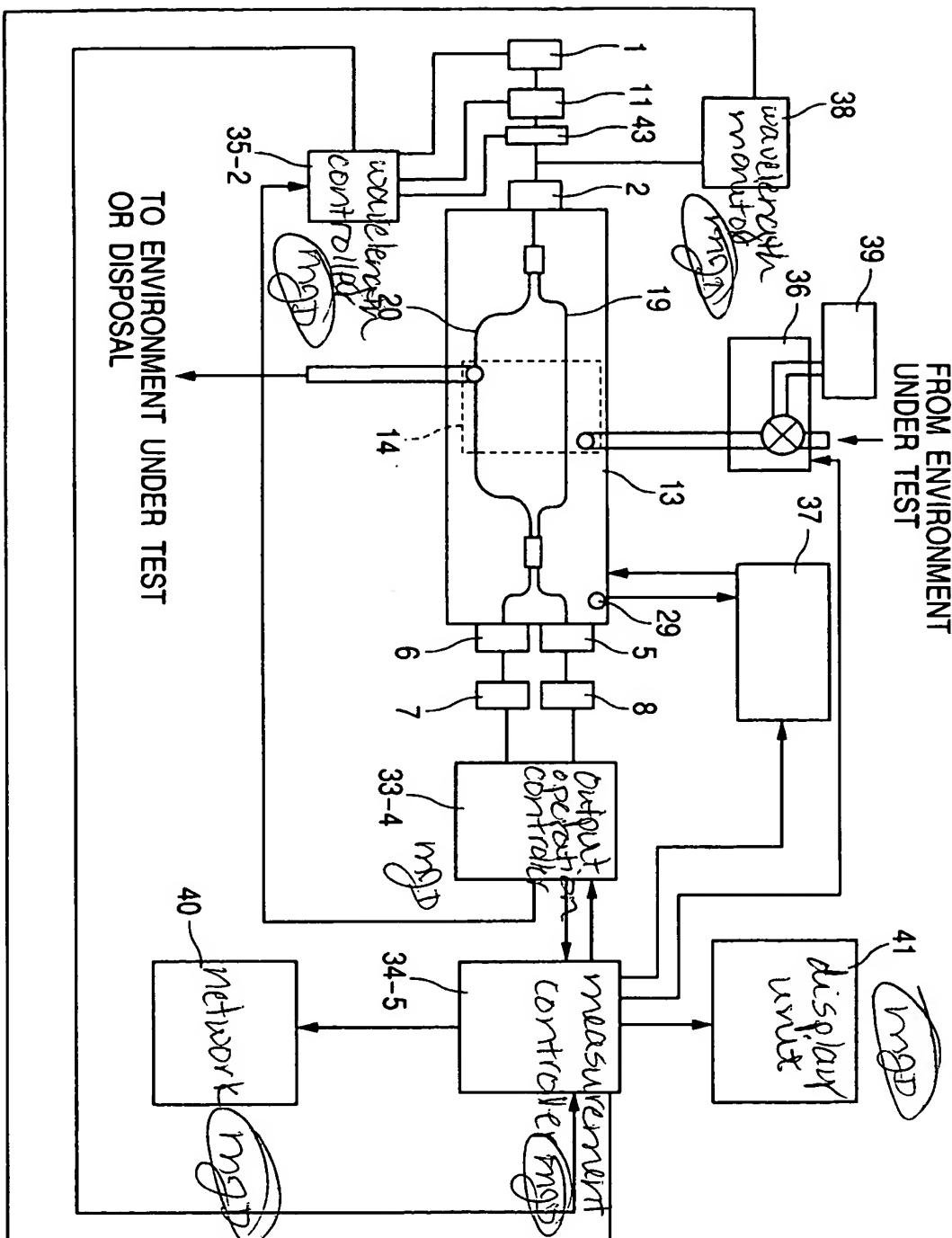


FIG. 13



**DETAILED ACTION**

***Information Disclosure Statement***

The information disclosure statement filed on January 6, 2004 has been fully considered by the examiner.

***Priority***

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 2003-148870, filed on May 27, 2003.

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Juan Carlos Marquez (RN 34072) on January 6, 2006.

The application has been amended as follows:

In regards to page 2, line 23 of the specification, the phrase "a non-patent document 1," has been removed.

In regards to page 4, line 5 of the specification, the phrase "a non-patent document 2," has been removed.

In regards to page 8, line 17 of the specification, the phrase "Patent document 1, United States Patent No.:" has been removed.

In regards to the specification,

- on page 15, line 22, the phrase "a region 17" has been replaced with --a region 18--
- on page 21, line 11, the phrase "a first embodiment" has been replace with --a second embodiment--
- on page 24, line 3, the phrase "a second embodiment" has been replace with --a third embodiment--
- on page 28, line 3, the phrase "a third example" has been replace with --a fourth example--
- on page 29, line 8, the phrase "a fourth embodiment" has been replace with --a fifth embodiment--
- on page 32, line 3, the phrase "a fifth embodiment" has been replace with --a sixth embodiment--
- on page 32, line 11, the phrase "a third embodiment" has been replace with --a fifth embodiment--
- on page 32, line 19 of the specification, the phrase "laser 1-1" has been replace with --laser 1--

In regards to the drawings,

- reference character "47" has been replaced with a --57-- in figure 2
- reference character "1-1" has been replace with a --1-- in figure 12
- a label of --Output Operation Controller-- has been added to blank box 33 of Figure 9, blank box 33-2 of Figure 10, blank box 33-3 of Figures 11 and 12, and blank box 33-4 of Figure 13
- a label of --Temperature Controller-- has been added to blank box 37 of Figures 9, 10, 12, and 13, and blank box 37-2 of Figure 11

- a label of --Measurement Controller-- has been added to blank box 34 of Figure 9, blank box 34-2 of Figure 10, blank box 34-3 of Figure 11, blank box 34-4 of Figure 12, and blank box 34-5 of Figure 13
- a label of --Wavelength Controller-- has been added to blank box 35 of Figures 9 and 10, blank box 35-1 of Figure 12, and blank box 35-2 of Figure 13
- a label of --Wavelength Monitor-- has been added to blank box 38 of Figures 10 and 13
- a label of --Display Unit-- has been added to blank box 41 of Figures 9-13
- a label of --Network-- has been added to the blank box 40 of Figures 9-13

***Examiner's Reasons for Allowance***

Claims 1-20 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

As to claims 1, 6, and 12, the prior art of record, taken alone or in combination, fails to disclose or render obvious the use of a reaction chamber for allowing a sample to flow through two waveguides wherein a sample is provided on one of the waveguides, in combination with the rest of the limitations of claims 1, 6, and 12.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Pertinent Prior Art***

The prior art made of record but not relied upon is considered pertinent to applicant's disclosure. The prior art of record is Foster (USPN 5,485,277) and Essenpreis et al. (USPN 5,710,630).

Foster discloses a chemical substance detection sensor that utilizes a reaction chamber to introduce an analyte into a reference and sample channels of a waveguide.

Essenpreis discloses a chemical substance detection sensor that uses a waveguide with a reference and sensor channel, the optical path length of the reference channel being variable.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa J. Detschel whose telephone number is 571-272-2716. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on 571-272-2059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

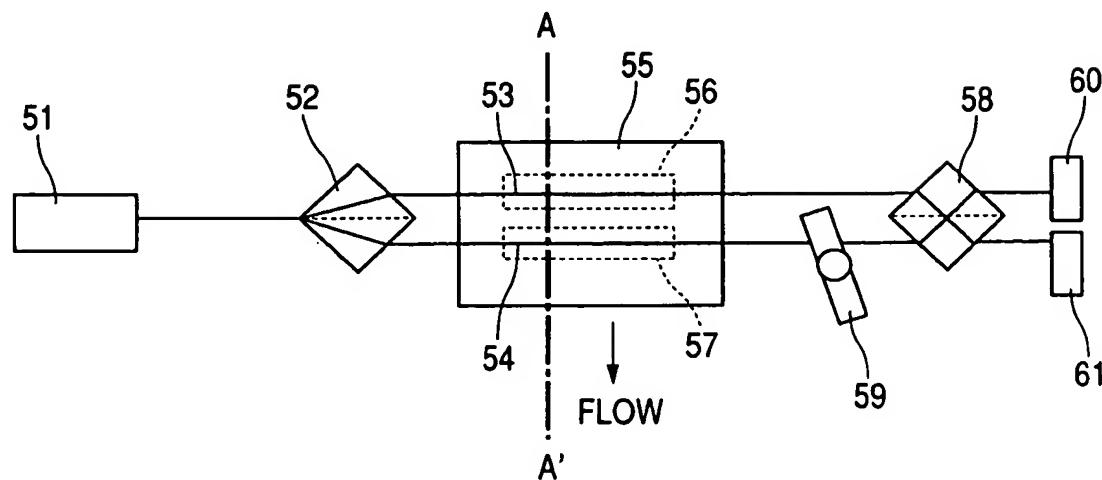
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marissa J Detschel  
January 9, 2006  
MJD

  
Gregory J. Toatley, Jr.  
Supervisory Patent Examiner  
23-146

17/12

**FIG. 1**  
**PRIOR ART**



**FIG. 2**  
**PRIOR ART**

